1: Radcliffe-Brown E-5 (1906-1908)1922
AZ2 Andamans AZ2



411 cut, and the arrow is served with thread of *Anadendron* fibre for about 1·6 cm. above the nock, in order to prevent splitting. At the other end the shaft is hollowed out to a depth of about a centimetre. This hollowing is done with the point of a fish-arrow or other similar piece of pointed iron. For a distance of about 1·5 cm. the end of the shaft is served over with thread of *Anadendron* fibre, so as to prevent it from splitting.

The fore-shaft consists of a piece of tough wood one end of which is cut to such a size that it will fit fairly tightly into the hollow at the end of the shaft. At the other end it is split so as to admit the head.

411 325 The head consists of a piece of iron broken into shape with the aid of a stone hammer and then ground down and sharpened on a whetstone or with a file if one be obtainable. The usual shape is shown in Fig. 17. The head is inserted into the split end of the fore-shaft and the end of the latter is then served over with thread. A few centimetres below the head either one or two sharp-pointed pieces of iron wire are placed against the fore-shaft in the same plane as the head and are bound firmly to it with the thread, so as to provide a barb or barbs.

411 283 A cord is made and one end of it is attached to the shaft and the other end to the fore-shaft. This cord is made as follows. A number of strands of *Anadendron* fibre are taken and waxed with bees'-wax. These are made into a cord by the same method as that described in connection with the Great Andaman bow-string, one strand being wrapped round the others. About 40 cm. of single cord is made in this way and the two ends are tied together. A piece of elastic wood is bent into the form of an arc and the loop of cord is placed over this so that it is stretched tight. A length of thread (of *Anadendron* fibre) is made and wound on to a fine netting needle or on to a thin slip of wood, and the two cords as they are stretched side by side are bound together with this thread by the process known as "nippering" (Fig. 19). In this way a firm and strong flattened cord is produced. One end of this is fastened to the fore-shaft immediately above the end that fits into the shaft. The other end is fastened to the shaft a few centimetres from the end, leaving a short length of the shaft around which the cord may be spirally wound when the arrow is in use. (Fig. 18.)

411 Finally, the thread on the fore-shaft, i.e. that which holds the head and barbs in place, and also that which serves to attach the end of the cord, are covered with the composition already described as used on fish-arrows.

⅞ [Head of pig-arrow — Analyst]

1: Radcliffe-Brown E-5 (1906-1908)1922
AZ2 Andamans AZ2



441 The true fish-spear is unknown in the Andamans though use is sometimes made of a harpoon similar to the turtle harpoon, but of smaller dimensions and with a finer line, for harpooning fish.

227 In the North Andaman a sort of fish-gig was formerly in use made of about twelve pieces of *Areca* wood of about 105 to 110 cm. long and 1 cm. or less broad and with tapered and sharp-pointed ends. These were fastened side by side by means of a strip of wood near one end, as shown in Fig. 26. This weapon was used for spearing small fish in pools on the reef.

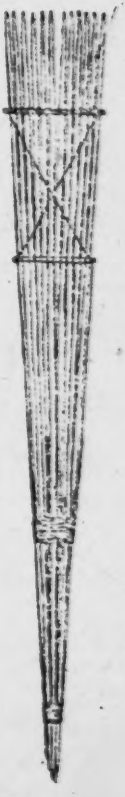

Fig. 26. North Andaman fish-gig

## CUTTING IMPLEMENTS.

412 177 At the present time the Andamanese make use of iron for their cutting implements. It is uncertain when they first learnt the use of iron, but it was certainly before the end of the eighteenth century. What iron they had was obtained from wrecks, of which there have always been a number on the Andamans. The metal has only become plentiful since the European settlement of 1858.

412 325 It is highly probable that the Andamanese, though they may have learnt the use of iron from implements used by visitors to their shores, have not learnt from any other people the method of working the metal. Even at the present day they do not make any use of heat in the manufacture of their iron implements, the metal being worked cold. It seems highly probable that they have simply adopted in connection with iron the methods they formerly used in dealing with other materials, particularly shells.

The materials used by the Andamanese, apart from iron, are wood, bone, shell and stone. We may begin by considering their use of stone.

412 324 In former times quartz flakes were used by the Andamanese for the two purposes of shaving and scarifying the skin, and for hardly any other purpose. (Among minor uses of stone flakes may be mentioned those of cutting the finger-nails, and sharpening boars' tusks.) A quartz pebble is held in the left hand and is struck with a hard rounded pebble of any suitable kind. A flake is thus knocked off and falls into the palm of the left hand. The flake is examined, and if it be suitable it is

1: Radcliffe-Brown E-5 (1906-1908)1922
AZ2 Andamans AZ2



412
hands of an Andaman Islander is a very efficient implement, producing 321
a beautifully smooth and even surface.

Of wood the Andamanese formerly made knives and arrow-points. 412
The knives were made of a slip of bamboo or cane shaped and
sharpened with a *Cyrena* shell. Such knives were used for cutting 322
meat and apparently for no other purpose. A knife was always attached by a short length of cord to a skewer of pointed *Areca* wood. The double implement was used in cooking and eating, the skewer serving to lift pieces of meat in and out of a pot, while the knife served to cut them. At the present time the cane or bamboo knife is replaced by a knife made from hoop-iron, but the shape of the original implement is retained as nearly as possible and a skewer of *Areca* wood is generally attached to it.

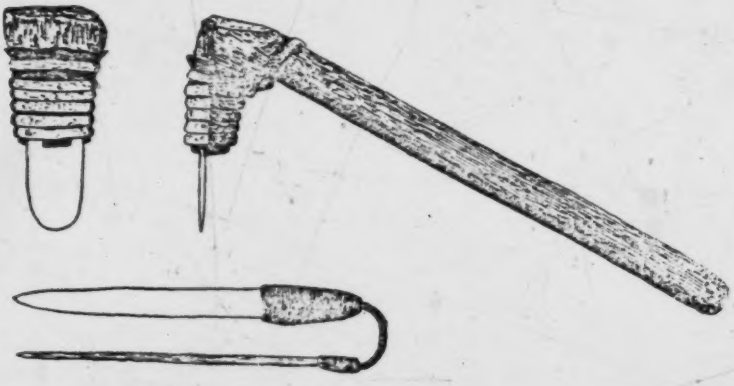

Fig. 28. Adze and knife

As has been already stated the Andamanese formerly used hard wood such as that of the *Areca* palm for the points and heads of their arrows. They do not seem to have made use of bamboo in this way.

At the present time iron is used for the blades of adzes, for the 411
heads and barbs of pig-arrows, the points of fish-arrows, the heads of 412
harpoons, and for knives. The method of working the metal is
apparently exactly the same as the method they formerly used for 325
working shell and bone. For the head of a pig-arrow a suitable piece of iron is taken and a fragment of about the right size is broken off by means of a stone hammer. This is then roughly broken into the required shape, no heat being used, and no advantage being taken of the malleability of the metal. The next process is to grind it on a

1: Radcliffe-Brown E-5 (1906-1908)1922
AZ2 Andamans AZ2



411 412 325 whet-stone. The natives are always eager to obtain files which enable them to do this part of the work much more rapidly. When the arrow-head has been ground into shape the edges are sharpened. Blades for adzes are made in exactly the same way from any suitable piece of iron or steel, such as a cutlass or an old file or a piece of thick hoop-iron. The adze-blade is attached to a handle of mangrove wood by the method shown in Fig. 28.

The barbs of pig-arrows and the points of fish-arrows are made in the same way by breaking the metal into a suitable shape and then grinding it on a whet-stone. It is probable that this was the method that was formerly used for dealing with bone for these purposes.

In the case of the knife, iron or steel is now substituted for cane or bamboo, but the knife has retained its shape in spite of the change of material. The shape of a knife, whether of cane or of iron, with its attached skewer of *Areca* wood is shown in Fig. 28.

In the case of the harpoon the native tradition is that this implement was only made after they had discovered the use of iron.

177 325 At the present time both the Semang and the Negritos of the Philippines make use of iron. The Semang heat the iron until it is red-hot and then batter it into shape between two stones[1]. The shapes of the iron weapons and implements which they make follow fairly closely those made by the Malays.

In an attempt to reconstruct the primitive Negrito culture it would seem that the most reasonable hypothesis is that the primitive Negritos had no knowledge of iron and had not learnt to fashion implements out of stone, but relied entirely on such materials as wood, bone and shell. The Andamanese, becoming possessed of iron through wrecks upon their islands, applied to it the technique that they had developed for dealing with shell, and thereby invented their present method of working iron without heating it. The Semang and the Negritos of the Philippines probably first learnt the use of iron from their neighbours of other races. There is not at present any evidence to show that the Negritos ever had any method of working stone except the very simple one at present in use in the Andamans for making flakes.

## String, Rope, Mats, Baskets, and Netting.

283 For string, rope and thread the Andaman Islanders make use of a number of different vegetable substances, but they make no use what-

[1] Skeat, p. 38.

2:Man G-5 (1869-1880)1932 AZ2 Andamans AZ2



**Metallurgy.**—Having been, till comparatively recent times, ignorant almost of the existence as well as of the uses of iron, it is not to be wondered at that smelting and forging have been to them unknown arts. Now that they are better informed, and are able to procure pieces of hoop-iron, keel-plate, &c., they apply them to the manufacture of their blades and adzes, reducing them to the required thinness by continually striking the cold metal with a hard smooth stone (*tai·li-ban·a-*[1]) on a rude anvil (*râ·rap-*) of the same substance; such portions of the iron as are then found to exceed the dimensions requisite for the weapon or tool under construction are placed over the edge of the anvil and broken off by dint of repeated blows: the new edge thus formed, being more or less jagged, is then ground on a hone till the blade assumes the desired shape. Many of the aborigines who have been living for some time at Port Blair have, however, advanced a stage beyond this, for, by using such old chisels as they may succeed in procuring, they contrive to make their arrow-heads and other implements much more speedily than by the old method. The pointed weapons, *e.g.*, the *kowai·a-* and *tô·lbō·d-*, are made from pieces of stout wire, large nails, &c., by dint of laborious and patient hammering on the *râ·rap-*, and grinding on the *tâ·lag-*.

325

**Stone Implements.**—1. Although a great portion of the inhabitants of Great Andaman have for some time past been able through us to procure iron in sufficient quantities to substitute it for stone (not to mention bones and shells), still they can by no means be said to have passed out of the stone age; indeed, the more distant tribes still retain the use, with scarcely any modification, of most of the stone and other implements which served their ancestors. Even the inmates of the homes at Port Blair may still often be seen employing one or other of them, evidently therefore from choice: this more especially refers to the first three in the following list,[2] which comprises the small number of stone implements in ordinary use among the present aboriginal inhabitants of the islands:—

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412

*râ·rap-*, the anvil.

*tai·li-ban·a-*, the hammer (probably a smooth round piece of dolerite or fine-grained basalt).

*tâ·lag-*, the whetstone (consisting of slightly micaceous sandstone).

*tô·lma lô·ko tūg-*[3] (lit., *quartz tooth*), chips or flakes for shaving, tattooing, &c.

[1] *Vide* next section, paragraph 1.

[2] There are no special makers, or procurers, of these stones.

[3] These are either fragments of opaque whitish vein quartz, or of transparent rock crystal, or are obtained from pebbles of opaque bluish-white quartz with

11: Cipriani E-3 (1951-1955) 1966 AZ2 Andamans AZ2

# Appendix

Below is given a brief summary of the evidence which in the author's opinion supports his view that the culture of the Andaman Islanders dates back at least to the Palaeolithic era.

### 1 ABSENCE OF STONE IMPLEMENTS

There are in the Andamans abundant sources of stones suitable for shaping into tools. Despite this I found no traces whatever of any stone implements even in the lowest strata of the kitchen-middens, nor is there any evidence of their being used either in the more recent past or at the present time. Until the very recent introduction of iron the Onges always (as the kitchen-middens confirm) made tools solely of wood, with the addition of parts made from *Tridacna* shells, shaped by long and patient rubbing against stone. The only objects remotely approaching the definition of stone implements are the splinters of quartz or obsidian which are carried in the hair, and used as razors or, in the Arioto only, for primitive tattooing. These splinters, which are in no way shaped after being broken off, are thrown away as soon as they become blunt, and a new piece of quartz is crudely struck from a lump, by men or women indiscriminately. The existence of this one stone implement does not, in my view, justify the classification of the Onges (or the Andamanese in general) as a true Palaeolithic people; it would be more reasonable to class them as prelithic.

### 2 ABSENCE OF METAL WORKING

Even today the Onges' knowledge of metal working is confined to rubbing pieces of iron against stone to reduce them to the required shape. They have no knowledge of how to forge it, nor have they the tools to do so. Iron is clearly a very recent introduction, the importance of which the

325 islanders, in the absence of any means of working it, have not fully realized.

### 3 IGNORANCE OF FIRE

372 194 The islanders' present ignorance of fire-making may possibly be the result of cultural decline, but this is not certain. In the presence of the considerable additional evidence in favour of the antiquity of the Andamanese culture it is, however, more likely that it is genuine ignorance, persisting in a pre-lithic people.

### 4 ABSENCE OF SALT

174 263 Although there can be no proof, it can be reasonably postulated that very primitive Man had no salt, and that in the Andamans this ignorance has persisted over thousands of years, owing to strict isolation. It is unlikely that the use of salt would have been completely lost, had it ever been introduced.

### 5 PRIMITIVE METHODS OF COOKING

252 172 Apart from the accidental and very recent introduction of petrol-drum cooking, the Andamanese use only the most primitive form of earth oven. This method of cooking was certainly known in the Palaeolithic era; at the entrance to the well-known Barma Grande cave near Mentone I have myself seen in the basal layers a number of stones bearing the marks of fire, too numerous merely to have formed some sort of hearth, and clearly not used to support cooking-pots, as Palaeolithic Man had none which would have withstood heat. The form of earth oven still used throughout the Andamans is undoubtedly of extreme antiquity.

### 6 FOOD VESSELS

415 285 172 The people of the Andamans still use for honey hollowed-out logs similar to those seen in Palaeolithic wall paintings, which also depict baskets very like those still in use throughout the archipelago. The art of basket-making can be traced back at least to the later Palaeolithic era.

### 7 USE OF POTTERY

323 172 As with the other Negrito peoples, pottery was unknown in the earliest culture of the Andamans. Its appearance seems from the evidence of the